

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Claims 1-41 (cancelled).

42. (new) A method of producing a recombinant polypeptide, comprising; transferring a recombinant polypeptide which is glycosylated in the ER of a plant cell to a plastid in the plant cell.

43. (new) A method of producing a recombinant polypeptide comprising; expressing in a plant cell a nucleic acid encoding a fusion polypeptide which comprises an ER signal sequence, one or more ER-plastid targeting sequences and a heterologous recombinant polypeptide.

44. (new) The method according to claim 43 wherein said plant ER signal sequence is from an ER processed plastid polypeptide.

45. (new) The method according to claim 43 wherein the one or more ER-plastid targeting sequences comprise at least 10 contiguous amino acids from an ER-processed plastid polypeptide.

46. (new) The method according to claim 45 wherein the at least 10 contiguous amino acids comprise two or more contiguous basic residues.

47. (new) The method according to claim 43 wherein the one or more ER-plastid targeting sequences are comprised within an ER-processed plastid polypeptide.

48. (new) The method according to claim 47 wherein the ER-processed plastid polypeptide has a sequence listed in Table 1.

49. (new) The method according to claim 47 wherein the ER-processed plastid-localised polypeptide is a CAH1 polypeptide.

50. (new) The method according to claim 43 comprising cleaving said expressed fusion polypeptide to generate said recombinant polypeptide.

51. (new) The method according to claim 50 wherein the expressed fusion polypeptide comprises one or more cleavable linker sequences, said heterologous polypeptide being generated by cleavage of said one or more linker sequences.

52. (new) The method according to claim 51 wherein said one or more linker sequences are cleaved within said plastid by a heterologous endoprotease to generate said recombinant polypeptide.

53. (new) The method according to claim 51 wherein said one or more linker sequences are cleaved within said plastid by an endogenous plastid endoprotease to generate said recombinant polypeptide.

54. (new) The method according to claim 43 comprising isolating and/or purifying said recombinant polypeptide from a plastid of said cell.

55. (new) The method according to claim 54 comprising isolating and/or purifying said expressed fusion polypeptide from a plastid of said cell prior to cleavage to generate said recombinant polypeptide.

56. (new) The method according to claim 43 wherein the recombinant polypeptide comprises one or more glycosylation sites.

57. (new) The method according to claim 56 comprising determining the glycosylation of the expressed recombinant polypeptide.

58. (new) The method according to claim 42 or claim 43 wherein said plastid is a chloroplast.

59. (new) A nucleic acid construct comprising;
a nucleotide sequence which encodes an ER signal sequence, and

one or more ER-plastid targeting sequences;
one or more restriction endonuclease sites for insertion of a nucleotide coding sequence capable of expressing a recombinant polypeptide fused to said ER signal and ER-plastid targeting sequences, and;
a heterologous regulatory sequence operably linked to said nucleotide sequence.

60. (new) The nucleic acid construct according to claim 59 comprising;
a heterologous nucleotide coding sequence capable of expressing a recombinant polypeptide fused to said ER signal and ER-plastid targeting sequences,
said coding sequence being inserted in the one or more restriction endonuclease sites.

61. (new) The nucleic acid construct according to claim 59 wherein the nucleotide sequence further encodes one or more cleavable linker sequences,
said recombinant polypeptide being generated by cleavage of said one or more linker sequences.

62. (new) The nucleic acid construct according to claim 59 wherein said ER signal sequence is from an ER-processed plastid polypeptide.

63. (new) The nucleic acid construct according to claim 59 wherein the one or more ER-plastid targeting sequences comprise at least 10 contiguous amino acids from an ER-processed plastid polypeptide.

64. (new) The nucleic acid construct according to claim 59 wherein the one or more ER-plastid targeting sequences comprise two or more contiguous basic residues.

65. (new) The nucleic acid construct according to claim 59 wherein the ER signal sequence and one or more ER-plastid targeting sequences are comprised within an ER-processed plastid polypeptide sequence.

66. (new) The nucleic acid construct according to claim 65 wherein the ER-processed plastid polypeptide sequence is a sequence listed in Table 1.

67. (new) The nucleic acid construct according to claim 65 wherein the ER-processed plastid polypeptide sequence is a CAH1 polypeptide.

68. (new) The nucleic acid construct according to claim 59 wherein said plastid is a chloroplast.

69. (new) The nucleic acid vector suitable for transformation of a plant cell and comprising a nucleic acid construct according to claim 59.

70. (new) The host cell comprising a nucleic acid construct according to claim 18 or a vector according to claim 69.

71. (new) The host cell according to claim 70 having said nucleic acid construct or vector within its genome.

72. (new) The host cell according to claim 70 which is a plant cell.

73. (new) The plant cell according to claim 72 which comprises nucleic acid encoding one or more mammalian glycosyltransferases.

74. (new) The plant cell according to claim 73 which is deficient in one or more plant specific glycosyltransferases.

75. (new) The plant cell according to any one of claims 72 which is comprised in a plant, a plant part or a plant propagule, or extract or derivative of a plant.

76. (new) The method of producing a cell according to claim 70, the method comprising incorporating said nucleic acid construct or vector into the cell by means of transformation.

77. (new) The method according to claim 76 which comprises combining the nucleic acid with the cell genome nucleic acid such that it is stably incorporated therein.

78. (new) The method according to claim 76 which comprises regenerating a plant from one or more transformed cells.

79. (new) The method according to claim 78 comprising sexually or asexually propagating or growing off-spring or a descendant of the plant regenerated from said plant cell.

80. (new) The plant comprising a cell according to claim 72.

81. (new) The method of producing a plant according to claim 77, the method comprising incorporating a nucleic acid construct according to claim 60 into a plant cell and regenerating a plant from said plant cell.